

ABSTRACT**A METHOD OF CONTROLLING A REVERSIBLE, POLYPHASE ROTARY ELECTRICAL MACHINE FOR A MOTOR VEHICLE HAVING A HEAT ENGINE**

5 The method of controlling a reversible, polyphase rotary electrical machine called an alternator-starter, for a motor vehicle with a heat engine, the machine being adapted to work either as an electric generator – in an alternator mode – or as an electric motor, in particular for starting the engine, the machine comprising a rotor with at least one excitation winding, a target and sensors, is characterised in that, starting from sensors of the linear type delivering signals of a sinusoidal type after reading of the target, a summation of
10 the signals delivered by the sensors is performed in a processing unit, by applying a coefficient to the sensors to create signals which are out of phase with each other, and the number of which is equal to the number of sensors, and in that, for each out of phase signal, the sum of the coefficients is zero.

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[Figure 5]